

ABSTRACT

A sloped via contact is used to connect a contact on the front side of a wafer to a contact on the back side of the wafer. The walls of a small (less than 50-80 microns wide) via have typically been difficult to coat with metal. The present invention forms a small via with sloped walls, allowing easy access to the inside walls of the via for metal sputtering or plating. The small via can be formed using a dry etch process such as the well-known deep reactive ion etching (DRIE) process. Using any isotropic plasma etch process, the walls of the via are further etched from the wafer backside to create sloped walls in the via. The via is then coated with metal to make it conductive.